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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Attorney Docket No. AUS920010938US1

IN RE APPLICATION OF:

Viktors Berstis

Serial No. 09/970,655

Filed: October 4, 2001

For: Extracting Information
From Software

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Examiner: Chuck O. Kendall

Art Unit: 2122

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

This Brief is submitted in triplicate in support of the Appeal in
the above-identified application.

CERTIFICATE OF MAILING
37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as First-Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on the date below:

JUNE 22, 2005
Date

Robert D. Halden
Signature

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73 **REAL PARTY IN INTEREST**

74
75 The present application is assigned to International Business
76 Machines Corporation, the real party in interest.
77

78
79 **RELATED APPEALS AND INTERFERENCES**

80
81 The present application is related to a copending application
82 09/970,656, entitled "Embedding Information In Software", which
83 is currently under a Final Office Action which was mailed
84 4/4/2005 from the same Examiner as the present application.
85

86
87 **STATUS OF THE CLAIMS**

88
89 Claims 1-24 are pending and stand finally rejected by the
90 Examiner as noted in the Final Office Action mailed January 26,
91 2005.
92

93
94 **STATUS OF AMENDMENTS**

95
96 Prior to the Final Office Action (mailed 1/26/05), there was only
97 one Office Action mailed 7/15/2004 and one Amendment mailed
98 10/11/2004. The Second and Final Office Action rejected claims 1-
99 7, 9-13, 15-16 and 19-24 under 35 USC 102(b) as being anticipated
100 by Hesse et al, (U.S. Patent 5,950,010), claim 8 was rejected

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under 35 USC 103(a) as being unpatentable over a combination of Hesse in view of Chen (U.S. Patent 6,496,979 B1) and claims 14, 17 and 18 were rejected under 35 USC 103(a) as being unpatentable over a combination of Hesse in view of Nabahi (U.S. Patent 6,006,035). The last entered amendment was submitted 10/11/2004 which amended the claims to the text shown in the Appendix.

SUMMARY OF THE INVENTION

The present application discloses a method and implementing computer system in which selected information is extracted from **computer program structures**. The selected information can be extracted from analysis of the **program structure rather than the program substance**, and used to re-create selected information (Figure 5) which has been **embedded within the organization** of the computer program (Figure 6). In an exemplary embodiment, the embedded selected information includes an identification of a licensed user together with a serial number of the associated licensed program (Figure 5 and Page 11, line 22, to page 12, line 23). The selected information is extracted by analyzing the organization of modules of a program (Figure 6, "Linked Program Modules", page 12 line 25 to page 13, line 26 and 814 Figure 8) and determining, for example, **a sequence in which program modules are coupled together**. The determined sequence is used to re-create the embedded information (Figure 6, "Corresponding Bit Sequence", and 815, Figure 8). In an exemplary embodiment, a transfer function is used to create a binary stream from the

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129 module sequence and the binary stream is representative of the
130 embedded information.

131
132 The above methodology is set forth in pending claim 1, which
133 recites:

134
135 "1. A method for extracting identification information from a software package, said software
136 package including a number of software modules organized in a manner determined by said
137 identification information, said method comprising:

138
139 determining an organization of said software modules within said software package; and
140
141 extracting said identification information from said organization of said software package"
142 (emphasis added).

143
144

145 **ISSUES**

146
147 1. Is the Examiner's rejection of claims 1-7, 9-13, 15-16 and 19-
148 24 under 35 USC 102(b) as being unpatentable over Hesse et al,
149 U. S. Patent 5,950,010 (herein referred to as "Hesse"), well
150 founded?

151

152

153 **GROUPING OF THE CLAIMS**

154

155 For purposes of this Appeal, claims 1-24 stand or fall together.

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ARGUMENT

I. With regard to the rejection of claims 1-7, 9-13, 15-16 and 19-24 under 35 USC 102(b) as being unpatentable over Hesse, it is respectfully submitted that there is no basis, disclosure, or teaching in Hesse sufficient to anticipate the total combination of elements and relationships as presently set forth in the noted claims as those claims are currently presented in the Appendix.

The present invention provides a means by which software **identification information, such as a user name or software package serial number**, is extracted from a software package by **determining the manner in which software modules are organized** in the software package. With the present invention, user identification or the serial number identification of a particular software package may be **ascertained by the manner in which the software package modules are arranged**. In one example, the identification information is represented in binary format, i.e. a series of "1's" and "0s", and that identification information is applied to the serial sequencing of software modules in a software package such that one sequence of software modules represents a binary "one" while another sequence of software modules represents a binary "zero". **Thus by determining the relative sequencing of software modules, one is enabled to re-assemble the binary identification information which is embedded into the software package and determine, for example, the licensed owner of the software package and/or the serial number of the software package.** Other formats may also be

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184 implemented.

185

186 The Hesse reference discloses a system for building and
187 installing custom application packages in a distributed computing
188 environment. Application packages are created through the build
189 subsystem by bundling one or more application modules and/or
190 application executables together using and then storing the
191 application packages in the server package storage. Hesse is
192 directed to the need for a system that functionally customizes an
193 application package for particular users using components from
194 one or more application suites and/or components of one or more
195 third party applications. Hesse builds custom computer
196 application packages which are then installed from a server
197 computer to a client computer. Hesse does not extract
198 identification information from the manner in which software
199 modules in the software package are arranged or organized. With
200 the present invention, **the arrangement (not the substance of the**
201 **code or headers) of software modules within the software package**
202 **contains the information needed to re-assemble the user**
203 **identification information** of the software package. Hesse does
204 not recognize the problem solved by the applicant and, indeed,
205 neither addresses the problem nor discloses any functionality
206 that even corresponds to applicant's methodology.

207

208 As alleged support for citing Hesse to anticipate applicant's
209 recitation that the "software modules are organized in a manner
210 determined by said identification information", column 8, lines
211 19-30 of Hesse are referenced (Final Office Action, page 2,
212 paragraph #4, lines 3-5). The referenced language at column 8,
213 lines 19-30 of Hesse recites:

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214
215 *"Reports are created using the report development tool 425.*
216 *Reports provide a presentation of the data to the user once the*
217 *user selects, through the forms, data elements sought from the*
218 *application. The CASE tools described above provide functionality*
219 *for selecting data, placing fields on a screen, and as well as*
220 *providing simple logic functions such as adding two numbers*
221 *together and placing the result in a third field. In some*
222 *instances, however, more advanced business functions are desired*
223 *for parts of a form which are too complex for the existing CASE*
224 *tools".*

225
226 Applicant believes that the above referenced language in Hesse
227 fails to anticipate either of the claimed steps of "determining
228 an organization of said software modules within said software
229 package" or "extracting said identification information from said
230 organization of said software package".

231
232 The current claims clearly recite the **relationship and dependency**
233 **between the order or sequence of software package modules and**
234 **identification information** (e.g. user or program identification
235 information), and that the identification information associated
236 with the software package is **extracted from the order in which**
237 **the modules of the software package are sequenced.**

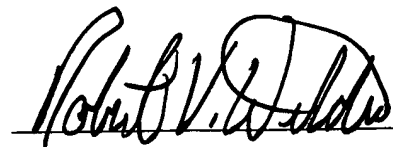
238
239
240 **CONCLUSION**

241
242 For the reasons stated above, applicant urges the Board to
243 conclude that the Hesse reference does not disclose a method or

244 system for, *inter alia*, determining an organization of software
245 modules within a software package and extracting identification
246 information **from the organization of modules** within the software
247 package, as those functions and relationships are set forth in
248 the pending claims, and that therefore the rejection of claims 1-
249 7, 9-13, 15-16 and 19-24 under 35 USC 102(b) as being
250 unpatentable over Hesse is not well-founded and should be
251 reversed. Further, upon allowance of the above noted claims,
252 which include all of the independent claims 1, 16 and 24, the
253 remaining dependent claims, all of which depend from one of the
254 independent claims and recite even further limitations, are, a
255 *fortiori*, allowable as well.

256
257 Please charge IBM Corporation Deposit Account No. 09-0447 in the
258 amount of \$500.00 for submission of a Brief in Support of Appeal.
259 No additional fee or extension of time is believed to be
260 required; however, in the event an additional fee or extension of
261 time is required, please charge the fee, as well as any other fee
262 necessary to further the prosecution of this application, to the
263 above-identified deposit account.

264
265 Respectfully submitted,

266
267 
268

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APPENDIX

1. A method for extracting identification information from a software package, said software package including a number of software modules organized in a manner determined by said identification information, said method comprising:
- determining an organization of said software modules within said software package; and
- extracting said identification information from said organization of said software package.
2. The method as set forth in claim 1 wherein said software package comprises software modules coupled together in a manner representative of said identification information.
3. The method as set forth in claim 2 wherein said software modules are coupled together by compiling said software modules into an executable form of said software package.
4. The method as set forth in claim 2 wherein said software modules are coupled together by linking said software modules into an executable form of said software package.
5. The method as set forth in claim 1 and further including:
- analyzing said software package to determine an organizational relationship among said software modules; and

303
304 determining a binary series from said organizational relationship
305 of said software modules.
306
307 6. The method as set forth in claim 1 and further including
308 transmitting said software package over a network to a requesting
309 terminal, said requesting terminal being enabled to extract said
310 identification information from said organization of said modules
311 of said software package.
312
313 7. The method as set forth in claim 6 wherein said software
314 package is transmitted from a user terminal over an Internet
315 network to a server.
316
317 8. The method as set forth in claim 6 wherein said user terminal
318 is a wireless device.
319
320 9. The method as set forth in claim 6 wherein said user terminal
321 is a personal computer system.
322
323 10. The method as set forth in claim 1 wherein said
324 identification information includes an identification of a user
325 of said software package.
326
327 11. The method as set forth in claim 1 wherein said
328 identification information includes an identifying number related
329 to said software package.
330

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331 12. The method as set forth in claim 11 wherein said
332 identification information further includes an identification of
333 a user of said software package.
334

335 13. The method as set forth in claim 1 wherein said software
336 modules are organized in a series of sets of software modules,
337 each of said sets comprising a predetermined number of software
338 modules.
339

340 14. The method as set forth in claim 13 wherein said series of
341 sets corresponds to a binary series, and each of said sets
342 comprises first and second software modules, said binary series
343 being determined in accordance with a sequence of said first and
344 second software modules within said sets of said software
345 modules.
346

347 15. The method as set forth in claim 13 wherein said series of
348 sets is organized in other than a binary format, each of said
349 sets comprising a number of said software modules other than two,
350 said identification information being determined according to an
351 order in which said number of software modules are sequenced
352 within said sets of software modules.
353

354 16. A medium including machine readable coded indicia, said
355 machine readable coded indicia being selectively operable in
356 combination with a processing circuit for extracting embedded
357 identification information from a software package by determining
358 an organization of software modules within said software package,

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359 wherein relationships between said software modules are
360 representative of said identification information embedded within
361 said software package.

362
363 17. The medium as set forth in claim 16 wherein said medium is an
364 optically encoded disk.

365
366
367 18. The medium as set forth in claim 16 wherein said medium is a
368 magnetically encoded magnetic diskette.

369
370 19. The medium as set forth in claim 16 wherein said software
371 package resides on a storage device within a computer device.

372
373 20. The medium as set forth in claim 16 wherein software package
374 resides on a memory device within a computer device.

375
376 21. The medium as set forth in claim 16 wherein said embedded
377 identification information includes an identification of a user
378 of said software package.

379
380 22. The medium as set forth in claim 16 wherein said embedded
381 identification information includes an identifying number related
382 to said software package.

383
384 23. The medium as set forth in claim 22 wherein said embedded
385 identification information further includes an identification of
386 a user of said software package.

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387
388 24. A network arranged to enable extracting of organizational
389 information of an organization of software modules within a
390 software package at a user terminal and transferring said
391 organizational information to a server for use in deriving
392 identification information embedded within said organizational
393 information, said network comprising:
394
395 a user terminal at which said software package resides;
396
397 a server; and
398
399 an interconnection between said server and said user terminal,
400 said user terminal being responsive to a request to upload said
401 organizational information of said software package for
402 determining said organizational information and transferring said
403 organizational information to said server.

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